Web-Based Customer Loyalty Efforts and Effects on E-Business Strategy

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INTRODUCTION

Despite continued market growth, a number of Web sites have been unprofitable. Some notable failures were eToys.com, boo.com, bluefly.com, buy.com, and valueamerica.com. An examination of the companies' IPO filings suggests that the collapses were caused by cut-price strategies, over-investment, incorrect expectations, and non-profitability. Surviving in the digital market has become a critical challenge for Web managers.

To face the business challenge, Web managers and marketers demand information about Web site design and investment effectiveness (Ghosh, 1998). As the rate and diversity of product/service innovation declines and competition intensifies, Web managers need better research on Internet-related investment decisions (Donath, 1999; Hoffman, 2000). The original article examined the role of customer retention actions in these decisions (Forgionne & Ingsriswang, 2005). This article updates the original analysis by incorporating new research on comprehensive e-business strategy models.

BACKGROUND

Since online consumers can switch to other Web sites or competitive URLs in seconds with minimal financial costs, most Web sites invest heavily in programs to attract and retain customers. The Web site's ability to capture consumers' attention is known widely as "stickiness."

From one perspective (Rubric, 1999, p. 5), stickiness is the ability of a Web site to capture and keep a visitor's attention for a period of time. Alternatively, stickiness can be described as the ability of the site in attracting longer and more frequent repeat visits or the ability of the site to retain customers (Anders, 1999; Davenport, 2000; Hanson, 2000; Murphy, 1999; O'Brien, 1999; Pappas, 1999). On the other hand, Demers and Lev (2000) represent stickiness by the average time spent at the site per visit.

These views suggest that stickiness is similar to, if not the same as, the marketing concept of customer loyalty (Morgan & Hunt, 1994). The idea is to develop and maintain long-term relationships with customers by creating superior customer value and satisfaction (Reichheld, 1996). Enhanced customer satisfaction results in customer loyalty and increased profit (Anderson, Fornell, & Lehmann, 1994; Reichheld & Sasser, 1990). Loyal customers, who return again and again over a period of time, also are valuable assets of the Web site. The ability to create customer loyalty has been a major driver of success in e-commerce (Reichheld, Markey, & Hopton, 2000; Reichheld & Schefter, 2000) since enhanced customer loyalty results in increased long-term profitability.

On the basis of marketing theory, then, stickiness can be viewed as the ability of a Web site to create both customer attraction and customer retention for the purpose of maximizing revenue and profit. Customer attraction is the ability to attract customers at the Web site both frequently and for long durations, while customer retention is the ability to maintain customer loyalty.

MODELING E-COMMERCE LOYALTY

E-commerce customer loyalty, or stickiness, results from goodwill created by the organization's marketing efforts (Reichheld, 1996; Reichheld & Sasser, 1990), or

$$\text{Stickiness} = f\,(\text{Goodwill}) \qquad (1)$$

and

$$\text{Goodwill} = f\,(\text{Marketing Mix}). \qquad (2)$$

By encouraging current and return visits, stickiness will influence the organization's sales volume. Marketing theory also suggests that the mix of price (including switching costs to consumers), product/service (including site characteristics), and promotion (including banner and other

Web site ads), as well as other factors (including consumer characteristics), will influence this volume (Page, Pitt, & Berthon, 1996; Storbacka, Strandvik, & Gronroos, 1994). Conceptually, then,

$$\text{Sales Volume} = f(\text{Stickiness, Promotion, Product, Price, Other Factors}). \quad (3)$$

Such volume will determine revenue, cost, and thereby profit for the Web site.

According to standard accounting practice and economic theory, profit is defined as the excess of revenue over cost, or

$$\text{Profit} = \text{Revenue - Cost}, \quad (4)$$

while revenue will equal sales volume multiplied by price, or

$$\text{Revenue} = \text{Sales Volume} \times \text{Price}. \quad (5)$$

The same standard accounting and economic theory indicates that an organization's costs will have fixed and variable components, or

$$\text{Total Cost} = \text{Fixed Cost + Variable Cost}, \quad (6)$$

and variable cost will equal sales volume multiplied by unit cost, or

$$\text{Variable Cost} = \text{Sales Volume} \times \text{Unit Cost} \quad (7)$$

with sales volume as defined in equation (3).

These marketing-economic-accounting-based relationships are illustrated in Figure 1. This figure and equations (1) through (7) provide a conceptual model that specifies the manner in which the stickiness investment contributes to an e-business's success by generating sales volume, revenue,

and profit. As such, the model identifies the information that must be collected to effectively evaluate investments in an e-commerce customer loyalty plan. These equations also provide a framework to objectively evaluate these plans and their impact on organizational operations and activities.

In practice, the model can be applied in a variety of ways. The general relationships can be used for strategy formulation at the macro-organizational level. In addition, the equations can be decomposed into detailed micro level blocks with many variables and interrelationships. At this micro level, tactical policies to implement the macro strategies can be specified and evaluated.

Empirical Testing

Much of the required model information is financial in nature. Such data are largely proprietary and therefore not readily available.

Summarized financial information is available from some Internet companies' quarterly (10-Q) and annual reports and other public sources. In particular, data were obtained from the 10-Q and annual (10-K) reports for 20 Internet companies over the period of 1999-2000. These pooled cross-section, time series data provided values for the revenue and marketing mix variables found in equations (1) through (7). Customer characteristics were proxied through demographic variables, and data for these variables were obtained from the U.S. Census Bureau, Statistical Abstract of the United States for the period of 1999-2000. The quarterly and annual report and Census data provided 120 observations to operationalize the model embodied in equations (1) through (7).

Goodwill, as defined in the economic and marketing literature (repeat business based on happy customers) is not available from the annual and quarterly reports. However, an accounting measure of goodwill, amortization of goodwill and other intangible assets, is available from the reports. Although not strictly the same concept as marketing goodwill, the accounting measure is likely to be correlated with economic goodwill and is thereby used as a proxy for

Figure 1 Stickiness conceptual model
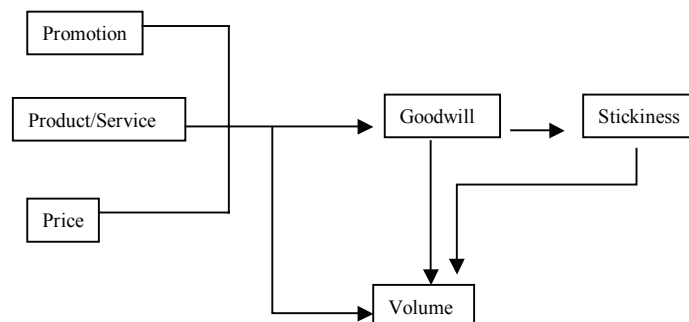
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